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The Mercury Education and Reduction Act Impact on Schools

June 2004

The Washington State Legislature passed the Mercury Education Reduction Act (MERA) in the summer of 2003. MERA mandates the reduced use of mercury in consumer products and in some cases the elimination of mercury-containing products. One focus area of MERA is schools in Washington State. Specifically, MERA requires that as of 1/1/06 schools may:

- no longer purchase elemental mercury for use in school labs;
- have proper storage and disposal of all elemental mercury;
- have a plan for the reduced use and elimination of mercury where possible;
- no longer purchase mercury-containing thermometers;
- no longer purchase mercury-containing thermostats, novelty items, or manometers;
- no longer purchase cars containing mercury switches (effective 6/1/06).

Along with the new regulations passed as a part of MERA, schools should be trained in the proper handling and disposal of used fluorescent light bulbs, mercury-containing thermostats, batteries and pesticides per the universal waste rule. While MERA allows these items to be taken to the county hazardous waste collection sites, *true* recycling is preferable.

While mercury's unique properties make it a intriguing chemical to use in the classroom, it is also hazardous. Each year, mishaps with mercury in schools result in incidents that incur substantial cleanup costs to the school district and result in considerable community concern. For example, a recent incident involving a mercury spill cost a Washington, DC school district over \$100,000 for cleanup and resulted in much adverse publicity, and lost days of instruction. The potential health risks to students/staff and cleanup costs far outweigh any of the perceived benefits of having mercury on site.

Cause for Concern: When liquid mercury is spilled, it forms droplets that can accumulate in the tiniest of spaces and then emit vapors into the air. Mercury vapor in the air is odorless, colorless, and very toxic. Most mercury exposures occur by breathing vapors, by direct skin contact or by eating food or drinking water contaminated with mercury.

Health problems caused by mercury depend on how much has entered your body, how it entered your body, how long you have been exposed to it, and how your body responds to the mercury. All mercury spills, regardless of quantity, are serious. Mercury released into the environment becomes a source for deposition into our waterways where it is converted to methylmercury by bacteria, beginning the bioaccumulative process that leads to elevated mercury levels in fish. Mercury in fish can damage the nervous system of developing fetuses when consumed by women of child-bearing age. The US Environmental Protection Agency (EPA) has recently estimated that 630,000 babies born each year are at risk for neuro-developmental damage due to mercury consumption.

Personnel Impacted by MERA include:

- **Teachers** – that might have elemental mercury in labs, in kitchens on the wall, and cooking thermometers.
- **Facilities Staff** – that oversee the storage, placement, removal and discarding of fluorescent lights or car purchase and disposal.
- **Administration** – that must implement these changes.
- **Grants and Contract Personnel** – who might use one of the several existing state contracts available from General Administration through State Purchasing Agreements for proper recycling of mercury-containing items such as fluorescent lights.
- **School Nurses and School Secretaries** – who have thermometers and manometers that they use in the sick room and health centers.

Resources: The following are resources for schools.

- Contracts for proper disposal of hazardous waste via existing State Purchasing Cooperative, which many school districts are a member of, and can be found on the General Administration website: www.ga.wa.gov
 - Contract 11601: Spent Lighting, CRT Tubes, Monitors, Televisions and Other Electronic Equipment.
 - Contract 07198: Hazardous Waste Disposal and Recycling.
- National Healthy Schools Training Binder: www.healthyschools.org
- Washington's Mercury Chemical Action Plan via the Ecology website, found at: www.mercurymess.org.
- EPA's "Tools for Schools," found at: www.epa.gov/schools.

The Washington State Department of Health (DOH) is currently developing an education plan that will include strategies to help schools meet the requirements of MERA. DOH seeks to develop this plan collaboratively with the Office of the Superintendent of Public Instruction (OSPI), Educational Service Districts (ESD) and school districts. In the next several months, DOH will form a working group that will explore the implications for schools, and begin to build a plan that works for students, teachers, administrators, school nurses and parents.

For further information, call Madeline Beery, Mercury Education Program Manager, WA Department of Health: 360-236-3189 or toll free at 1-877-485-7316.